



Low-Flow GW System Installation **Environmental Management Program**

Background / Purpose: Conventional groundwater (GW) sampling techniques require one and one half bore hole volumes of water to be purged from GW wells before a representative sample can be collected for laboratory analysis. The purpose of this EMP is to reduce the amount of purge water to the maximum extent practicable using low-flow sampling methods while simultaneously reducing the time, effort and disposal costs associated with the GW sampling program.

Objective: Reduce the amount of purge water generated at the Miramar landfill during groundwater sampling events.

Related Significant Aspects: Purge water handling.

Target: 90% reduction (400 gallons) of purge water per GW sampling event at the Miramar Landfill.

Target Completion Date(s): February 2008

Action Plan: Systematically replace the seven groundwater pumps at Miramar with low flow pumps.

Responsible Person(s): Groundwater Engineer, Senior Mechanical Engineer

Resources Required: Groundwater pumps, tubing, etc.

Environmental Performance Indicator(s): Reduced purge water generation.

Comments (including other expected benefits or cost savings): In addition reducing the amount of purge water required for disposal this process will reduce the time and cost to complete sampling of the groundwater throughout the landfill.

Baseline Data: 507 gallons of purge water generated per sample event based on historical records.

Prepared by: Mark zu Hone, Environmental Management Representative

Reviewed by: Ray Purtee, Senior Mechanical Engineer
George Morton, Assistant Civil Engineer

Approved by: Kip Sturdevan, Deputy Environmental Services Director, WRAD

Low-Flow GW System Installation

Environmental Management Program

EMP Schedule					
Step	Action Items	Responsibilities	Role	Schedule	Resources Required
1	Approve expenditure for Low Flow system upgrade	R. Purtee	Lead	Complete	Funding approval
2	Order GW Low Flow equipment	G. Morton	Lead	Sept 07 Complete	Purchase Order
3	Parts Shipment received	G. Morton	Lead	Sept 07 Oct 07	N/A
4	Schedule GW well refurbishment	G. Morton	Lead	Oct 07	Low Flow equipment
5	Remove existing pumps and install Low Flow system	G. Morton	Lead	Oct 07- Feb 08	Low Flow equipment, tools, field staff support

Comments (report performance/milestones):